WHAT IS CLAIMED IS:

1.   A polarity switchable combined Vivaldi notch/meander line loaded antenna, comprising:

a top plate having a Vivaldi notch antenna therein;

a pair of side plates each having a Vivaldi notch therein;

a bottom plate having a Vivaldi notch therein, each of said Vivaldi notches having a throat and a feed point at said throat;

meander lines electrically connecting adjacent plates together and;

a processor coupled to selected feed points for selectively providing said antenna with a horizontal polarization, a vertical polarization, a right hand circular polarization or a left hand circular polarization.

2.   The antenna of Claim 1, wherein each of said plates has a slot extending rearwardly of said Vivaldi notch.

3.   The antenna of Claim 2, wherein adjacent edges of said plates are spaced apart.

4.   ·The antenna of Claim 3, wherein said meander lines bridge respective spaced apart plates.

5.   The antenna of Claim 2, and further for each plate including a cavity interposed between the throat of a Vivaldi notch and the associated slot, thus to provide an end-fire antenna.

6.   The antenna of Claim 1, wherein said processor includes a linear combiner and a quadrature hybrid combiner coupled thereto.

7.   The antenna of Claim 6, wherein the feed for said top plate is denoted B, wherein the feeds for the side plates are respectively denoted A and C, and wherein the feed for the bottom plate is denoted D and wherein the mode of operation of said antenna as determined by said processor is:

	V_{pol}	H_{pol}	RH_{Cpol}	LH_{Cpol}
A	1	0	1	1
B	0	1	-i	+i
C	1	0	1	1
D	0	1	-i	+i

8.   The antenna of Claim 1, wherein said plates form a retilinear horn, and wherein said meander lines are carried internal to said plates.

9.   The antenna of Claim 8, wherein said meander lines are arrayed in a symmetric pattern.

10.   The antenna of Claim 9, wherein said symmetric pattern includes a pedal pattern.

11.   The antenna of Claim 10, wherein said meander lines point around a cross-sectioned horn periphery in the same direction.

20